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ABSTRACT

A teaching module or student-oriented learning outline on budgeting in higher education is presented. The module is designed for either group or individual student use and is specifically for the study of higher education. Objectives of the unit are as follows: define "budget," list and describe several types of budgets, cite the three phases of the budget process, cite the three stages of the actual budget document preparation, name several main types of budgetary expenditures, name several income sources for colleges, recognize some typical formulas used in the budgeting process, and practice putting parts of budgets together. The following types of budgeting methods are included: line expense budgeting or line item budgeting, program budgeting, planned program budgeting, zero based budgeting, incremental budgeting, and formula based budgeting. A bibliography covering 1970-80 is included. (SW)

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BUDGET IN HIGHER EDUCATION

(TEACHING MODULE)
Spring

REBECCA A. EMERY

Spring

1980

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Budget & Budgeting*

Introduction: The budget is a fact of life for administrators. The budgeting process is a crucial point of involvement for administrators. Understanding both the budget and the budgeting process allows administrators to provide more knowledgeable input into a crucial planning strategy for most institutions. The following information and exercises will help provide you with an informative grounding on budgets that hopefully will lead you to quality involvement in the budgeting process.

Goals: To have a working knowledge of the budget and budgeting process of colleges and to be basically familiar with budget types, budget components, and budget philosophies.

Objectives: By the end of this unit you will be able to;

1. Define "Budget"
2. List several types of budgets and briefly describe them.
3. Cite the three phases of the budget process.
4. Cite the three stages of the actual budget document preparation.
5. Name several main types of budgetary expenditures.
6. Name several income sources for colleges.
7. Recognize some typical formulas used in the budgeting process.
8. Practice putting parts of budgets together.

*Prepared by Rebecca A. Emery, Spring, 1980

Budget Defined: A budget is a statement of proposed expenditures for a fixed period or for a specific project or program. It represents an analyses of what a college feels it can do in one fiscal year to achieve its goals within the confines of total resources available. Robbins, p. 9 & 70.

Budget Process: Basically the budgetary process is the financial aspect of planning. It is the activity through which resource allocation is accomplished.

Common Types of Budgets: (See Appendix I for comparative chart of budget types.)

Line Expense Budgeting or Line Item Budgeting

Defined: This type of budgeting is simply a listing of large items such as personnel, equipment, and operating expenses. These categories can be further itemized or broken down and a dollar figure assigned to each category. This is a most common form of budgeting as every type of budget uses the line item format to some degree. Schlissel, p. 21-27. Robbins, p. 10.

Advantages:
--Lower level managers have input.

Disadvantages:
--Can reduce line-items without regard to programmatic inpact.

--Limits administrative discretion in spending.

--Programs or activities not reviewed.

Program Budgeting

Defined: Simply line item expenditures broken down under offered programs. Morril, p. 17.

Advantages:
--Focuses on inputs and outputs

--Requires cost analysis.

Planned Program Budgeting (PPB)

Caruthers, p. 40-45

Defined: Designed to merge the planning process with allocation of funds. The steps are; Morril, p. 17.

Plan--select long-range objectives and analyze various courses of action (cost/benefit)

Program--decide on specific courses of action to carry out planning

Budget--translate planning and programming decisions into specific financial plans

Therefore by using PPB objectives are planned and agreed

upon and then funds are allocated on whatever mix of resources best accomplishes the objectives.

Advantages:

--Aids compromising and decision making.

--Qualitative judgments also used.

--Emphasizes goals and related strategies.

--Can point out shortcomings and need for change.

--Programs are distinguishable.

--Focuses on results.

Disadvantages:

--Focuses on results, not "how to."

--Does not provide an operating tool for managers who implement.

--Does not provide means to evaluate impact of various levels of funding.

--Does not establish priorities among programs.

Zero-Based Budgeting (ZBB)

Defined:

Start from zero dollars every year to facilitate setting of new priorities and to prevent unwarranted assumptions. The idea is to divide programs into packages of more detailed goals, activities, and resources and then to calculate cost from "bottom-up." In that way decision packages are developed, analyzed and finally ranked. The three key premises of ZBB are;

1) Programs and activities are subject to justification.
2) The consequences of not performing a service or performing at a reduced level can be examined.
3) Alternative methods of delivering a service are identified. (See Appendix I-A)

Robbins, p. 11-12. Schlissel, p. 24.

Kravitz, p. 38-39.

Advantages:

--Forces managers to plan each program new.

--Focus on tasks.

--Various alternatives are able to be compared.

Disadvantages:

--Lacks operational data.

--Not applicable for broad policy changes.

Incremental Budgeting

Defined:

A most common and the oldest form of budgeting where last years base budget is simply "added on" to determine additional monies needed. Each line item is considered for an increment or remains unadjusted.

Robbins, p. 11. Caruthers, p. 36-37.

Advantages:	--Requires least amount of work and analysis.	
	--Politically can cause least amount of conflict since it is assumed that each unit will receive at least as much as last years appropriation.	
	--Legislative tendency to approve.	
Disadvantages:	--Perpetuates status quo.	
	--Not a planning but a financial approach.	
	--Base budget is taken for granted as distributed properly with little programatic change needed.	
	--Supplies little information concerning whether budget decisions support institutional goals.	
	Formula-Based Budgeting (term-budget guidelines)	Caruthers, p. 38-44.
Defined:	Variant formulas for computing anticipated expenditures by using predetermined set of ratios and cost parameters. All budgets contain some formulas but the most significant use of formulas is at the state level. (See Appendix II)	
Advantages:	--Provides for equal treatment among institutions.	
	--Promotes communication between institutions and state-level budget decision makers.	
	--Can reduce the degree of inappropriate political decision making.	
Disadvantages:	--Inhibits educational change, i.e., not responsive to new inputs or change.	
	--Fails to reserve educational decisions to educators.	
	--Formulas can be misused internally.	
	--Does not establish levels of quality.	
	--Defeats incentive, i.e., discourages funding of new or high cost programs.	
	New Approaches to Budgeting	
Cost Simulation Defined:	Cost Simulation-Models which yield kinds of management information needed to make management decisions. (See Appendix III for Cost Simulation Model.)	Robbins, p. 56.
RRPM Defined:	Resource Requirement Prediction Model-A computer-based cost estimation model to simulate cost of operating a	Robbins, p. 58-59.

college over 5 to 10 years. Two important ingredients include; student flow model and induce course load matrix so as to predict composition of courses and expected output in terms of degrees awarded.

PPBS

Defined: Program Planning Budgeting System (PPBS)-This type of budgeting is a cost accounting approach in which the program becomes a budget center (cost center) and it is charged for all services it receives from the institution. The end result is an estimation of the cost of each major-output (a graduate is an example). Relies on computers usually. — Farmer

Advantages:

--Program evaluation and monitoring made easier. — Smith, p. 31-39.

--May result in improved allocation of resources to instructional goals.

--Flexible.

--Planning and priority setting facilitated.

Disadvantages:

--Expensive.

--Time-consuming.

--Difficult to get academic community to think in terms of cost budgets.

--New training required and more paperwork generated.

OST

Defined: Objectives, Strategies, and Tactics (OST)-This divides long-range strategies into shorter-range actions (decision packages). — Baldwin

Budget Process

Defined: The budget process is a cyclical activity that should answer the question, "Where and how can we most effectively and efficiently spend our money?" The budget should be a policy-supporting document rather than policy making document, i.e., the allocation of money must be made which will support the goals of the institution. There are three distinct phases of the budgeting process: (See Appendix IV) — Dozier, p. 10-13.

Phase 1: Long-Range Planning

Develop background information, drawing from the Statement of Goals, pertinent data, influencing external factors and governance philosophy to predict and plan on such things as enrollments, curriculum, faculty matters, student body composition, physical plant and library needs, special — Financing Higher Education

services required. A key issue in the 1980's is how to tie in long-range planning to budgeting. A continuous problem is the revisement of the budgetary process to fit long-range plans, decreased enrollments and more intensive and detailed budgetary reviews required by state governments.

Phase 2: Program Planning

Using the long-range plan, plan and review specific academic support programs. Estimate revenue needs (See Appendix VI to see a list of potential revenue sources).

Phase 3: Documentation Preparation

There are basically three seperate stages of Budget Preparation. They are;

Stage 1: Unit Budgeting-Each unit such as academic program unit or student services is provided with data and forms to set down on paper financial needs for operating during the fiscal year. Usually the format called for on the budget sheet is the same as accounting systems, i.e., personnel, services, supplies. These large categories can then be broken down into line items. A directive can be issued specifying certain formulas to be used.

Robbins, p. 48.

Stage 2: Budget format-The format is dependent on the kind of budget the college develops but major sections that will usually be included are;

1. General statement or introduction.
2. Summary of income sources.
3. Summary of expenditures by major divisions and by major classes of expenditures (See Appendix VII for one example).
4. Supporting data (enrollment summaries, faculty summaries by FTE, salaries and rank, support staff summaries by FTE, salaries and levels, equipment schedules, etc.)

Percentage distribution is approximately:

Administration	15%
Plant Operations	20%
Library	5%
*Instruction	55%
Extension/Research	3-5%

*Always the largest expenditure within E. & G.

Stage 3: Revise/Review/Finalize-In this final phase the cost of programs and anticipated revenue for the target year needs to be examined and revisions made. The President endorses the budget and forwards it to the Governing Board for final approval.

APPENDIX I

Comparing Budget Types

Types of Budgets	Defined	(Distinguishing) Characteristics	Advanatages	Disadvantages	Orientation
Line Item	Itemization/Listing of each budget item.	-Found in all budgets	-All levels have input	-Reduce line items without regard to impact. -Limits discretion	Present
Program	Line item by program		-Includes inputs and outputs and cost analysis		Present
PPB	Rational application of criteria to budget decisions.	-Centralized.	-Helps decisions. -Qualitative & quantative -Can see shortcomings -Result oriented.	-Not an operating tool. -Various level of funding not evaluated. -No priorities among programs.	Future
ZBB	Start with 0$ every year and justify.	-Decentralized	-Force to re-plan. -Focuses on tasks. -Comparative	-No operational data. -Narrow in scope.	Future
Incremental	Add on to last years base.	-Most common. -Oldest form.	-Least work. -Politically expedient. -Tendency to approve.	-Status quo. -Not necessarily supportive of goals.	Present
Formula Based	Uses formulas for computing expenditures.	-Commonly used at state level.	-Equal treatment among and within institutions. -Promotes communication at state level -Reduces subjectivity	-Inhibits change. -Inhibits inhibition. -Misused. -Lacks quality control. -Defeats incentives.	Present

APPENDIX I (Cont.)

Types	Affects	Process	Comments	Aids Planning
Line Item	-Short range	-Bottom up		No
Program	-Short range	-Mid-level up		No
PPB	-Long range	-Top down	-Facilitates policy decisions	Yes
ZBB	-Short range	-Bottom up	-Emphasizes decision packages	Yes
Incre-mental	-Short range	-Bottom up		No
Formula Based	-Short range			Yes

APPENDIX I-A

CHECKLIST OF POSSIBLE DECISION UNITS

Instruction

Divisions or Departments (Each Separately)
Courses (By Course or Similar Course Grouping)
Academic Administration
Instructional Support
"Special Academic Chairs"
Computer-Assisted Instruction
Faculty Development
Development of New Instructional Techniques
Continuing Education
Summer Session
Overseas Programs
Remedial or Developmental Education
Sabbatical Leaves
Off Campus Centers (By Center)

Learning Resource Center

Administration
Cataloging
Photocopy and Microfilm
New Book Purchases
Subscriptions
General Service (Checkout, Reference, etc.)
Book Binding

Student Services

Admissions
Student Records
Registration
Financial Aid
Student Activities
Lecture Concert Series
Counseling
Placement
Residence Halls
Intramurals
Intercollegiate Athletics
College Union
Testing and Evaluation
Health Services
Graduate Admissions
Student Orientation
Student Judicial Affairs
Student Recruitment

Administration

Office of the President
Executive Management
University Relations
Alumni Relations
College Information Services
Computer Services
Institutional Research
Legal Services
Professional Development
Board of Trustees
Endowment Management
Planning Coordination
Program Evaluation

Business Affairs

Accounting
Purchasing
Building Maintenance
Grounds Maintenance
New Construction
Campus Police
Campus Fire Department
Trust Funds
Preventative Maintenance (Equipment)
Auxiliary Services (By Separate Service)
Personnel
Facilities Planning and Development
Cash Flow Management
Payroll
Controller's Office
Annual Audit
Fringe Benefits

Appendix II: Typical Formulas

Staffing Formula

Most common type of formula is the student per faculty ratio. (Divide number of students enrolled by number of faculty employed, usually expressed in terms of FTE.)

A standard often followed is;

Lower division classes --- 23:1 (students per faculty)

Upper division classes --- 17:1

Master-level classes ----- 12:1

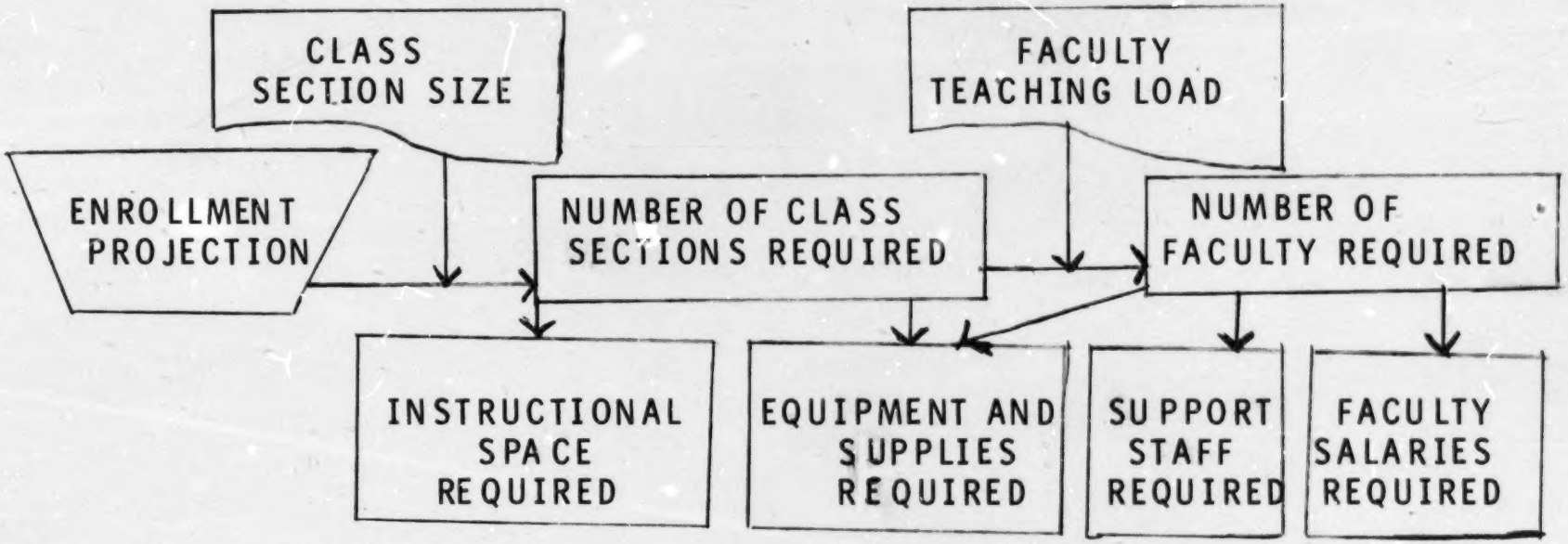
Doctorate-level classes -- 6:1

Library Formula

Consider number of students, number of faculty, number and nature of programs to determine volume number and funding level.

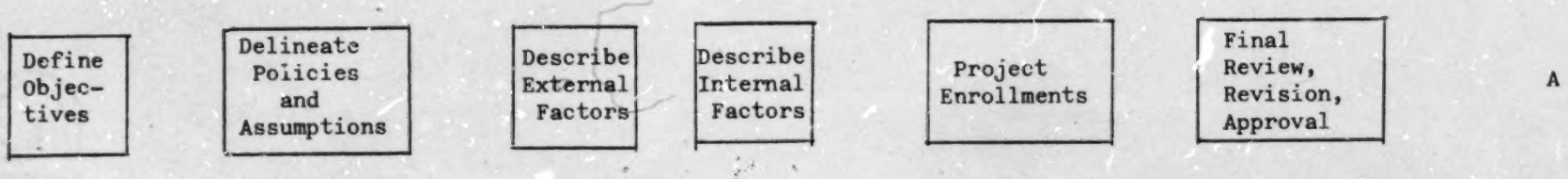
APPENDIX III

COST SIMULATION MODEL CONCEPT

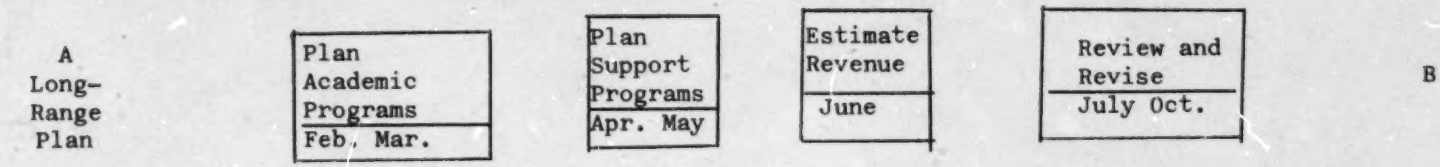


APPENDIX IV

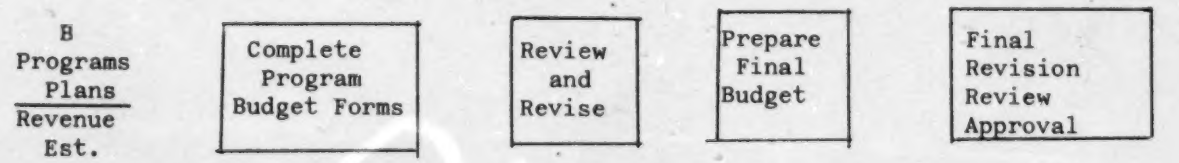
PHASE I: Long Range Planning (10 year plan)



PHASE II: Program Planning (5 year plan)



PHASE III: Document Preparation (one year plan)



Source: Understanding the College Budget by Gerald B. Robins p. 19

Appendix VI

Revenue or Income Sources for the Budget

Robbins, p. 36.

Money comes from the following sources:

1. Tuition and fees (Students pay about 1/4% of their cost in a public college.)
2. Government appropriation-the major source of revenue.
3. Foundations-fund raising.
4. Gifts
5. Federal Grants.
6. Recovery of Indirect Cost-comes from funded projects, public service and services for sale.
7. Sale of product, services, land.
8. Reallocation-shifts of money from areas where allocations are inefficient to areas in more of a need.
9. Auxillary enterprises.

Appendix VII

Major Types of Budgeting Expenditures

1. Auxillary

   Money spent on the usually self-supporting or non-profit enterprises such as dorms, bookstore, cafeteria. — Robbins, p. 13-15.

2. Construction

   Often construction projects are budgeted separately because constructing is long-range and entails support from sources different from E & G or auxillary. — Self-Study, p. 106.

3. State Aid

   Monies spent on scholarships, fellowships, and student financial aid.

4. Education and General (E & G)

   These expenditures made in educational programs and general support services. Educational expenditures include-instruction, research, service and library. General expenditures include administration, plant operations, student services, and general institutional expenditures (staff benefits, alumni, publications, etc.) This is the largest expenditure within a college budget.

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